

METHOD AND DEVICE FOR DISTINGUISHING GEMSTONES

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ABSTRACT

Natural diamonds can be discerned from imitations, synthetic diamonds and treated diamonds on the basis of their physical qualities. Labs always
10 test several specific characteristics in order to discern natural diamonds from others. One of the tested qualities is electrical conductivity. The invention concerns a method to establish the presence of electrical bulk conductivity. Use is made to this end of the fact that the proximity of an electrically conductive object (gemstone) has an influence on the parasitic capacity of a capacitive probe. The parasitic capacity is also influenced
15 by the dielectric constant of the dielectric. The influence of the proximity of electrically conductive gemstones as opposed to non-conductive gemstones on the parasitic capacity is hereby larger than the influence of the differences in the dielectric constant of the gemstones.

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Figure 1